



#### SKILLSHEET 10.6

### Reading financial tables

The calculations for many financial problems are quite complex and beyond the scope of this course. In practice, banks and other financial institutions will provide a table of values that will allow a customer to easily calculate the value of an investment.

The table below shows the amount to which \$1 will grow under compound interest. On the horizontal are various interest rates and on the vertical is the number of interest periods.

Periods	Interest rate per period									
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	1.010	1.020	1.030	1.040	1.050	1.060	1.070	1.080	1.090	1.100
2	1.020	1.040	1.061	1.082	1.103	1.124	1.145	1.166	1.188	1.210
3	1.030	1.061	1.093	1.125	1.158	1.191	1.225	1.260	1.295	1.331
4	1.041	1.082	1.126	1.170	1.216	1.262	1.311	1.360	1.412	1.464
5	1.051	1.104	1.159	1.217	1.276	1.338	1.403	1.469	1.539	1.611
6	1.062	1.126	1.194	1.265	1.340	1.419	1.501	1.587	1.677	1.772
7	1.072	1.149	1.230	1.316	1.407	1.504	1.606	1.714	1.828	1.949
8	1.083	1.172	1.267	1.369	1.477	1.594	1.718	1.851	1.993	2.144
9	1.094	1.195	1.305	1.423	1.551	1.689	1.838	1.999	2.172	2.358
10	1.105	1.219	1.344	1.480	1.629	1.791	1.967	2.159	2.367	2.594

#### WORKED EXAMPLE

Use the table above to find the amount to which an investment of \$5750 will grow under an investment at 8% p.a. for 3 years with interest compounded semi-annually.

#### THINK

- 1 Calculate the interest rate per period.
- 2 Calculate the number of interest periods.
- 3 Look up the table for the intersection of 4% and 6 interest periods.
- 4 Multiply this number by the amount of the investment.

#### WRITE

$$\begin{aligned}\text{Interest rate} &= 8\% \div 2 \\ &= 4\%\end{aligned}$$

$$\begin{aligned}n &= 3 \times 2 \\ &= 6\end{aligned}$$

$$1.265$$

$$\begin{aligned}A &= \$5750 \times 1.265 \\ &= \$7273.75\end{aligned}$$

### Try these

- 1 Calculate the amount to which each of the following investments will grow.
  - a \$10 000 at 7% p.a. for 4 years with interest compounded annually
  - b \$5680 at 9% p.a. for 10 years with interest compounded annually
  - c \$20 000 at 8% p.a. for 4 years with interest compounded semi-annually
  - d \$16 750 at 10% p.a. for 3 years with interest compounded semi-annually
  - e \$47 000 at 8% p.a. for 2 years with interest compounded quarterly
  - f \$9400 at 12% p.a. for 2 years with interest compounded quarterly
- 2 Calculate the amount of compound interest earned on each of the following investments.
  - a \$95 000 at 10% p.a. for 6 years with interest compounded annually
  - b \$24 650 at 7% p.a. for 5 years with interest compounded annually
  - c \$2225 at 10% p.a. for 5 years with interest compounded semi-annually
  - d \$12 500 at 14% p.a. for 4 years with interest compounded semi-annually
  - e \$9990 at 8% p.a. for 2 years with interest compounded quarterly
  - f \$35 800 at 12% p.a. for 2 years with interest compounded quarterly

## SKILLSHEET — ANSWERS

### SKILLSHEET 10.6

#### Reading financial tables

- |                     |                      |
|---------------------|----------------------|
| <b>1 a</b> \$13 110 | <b>b</b> \$13 444.56 |
| <b>c</b> \$27 380   | <b>d</b> \$22 445    |
| <b>e</b> \$55 084   | <b>f</b> \$11 909.80 |
| <b>2 a</b> \$73 340 | <b>b</b> \$9933.95   |
| <b>c</b> \$1399.53  | <b>d</b> \$8975      |
| <b>e</b> \$1718.28  | <b>f</b> \$9558.60   |